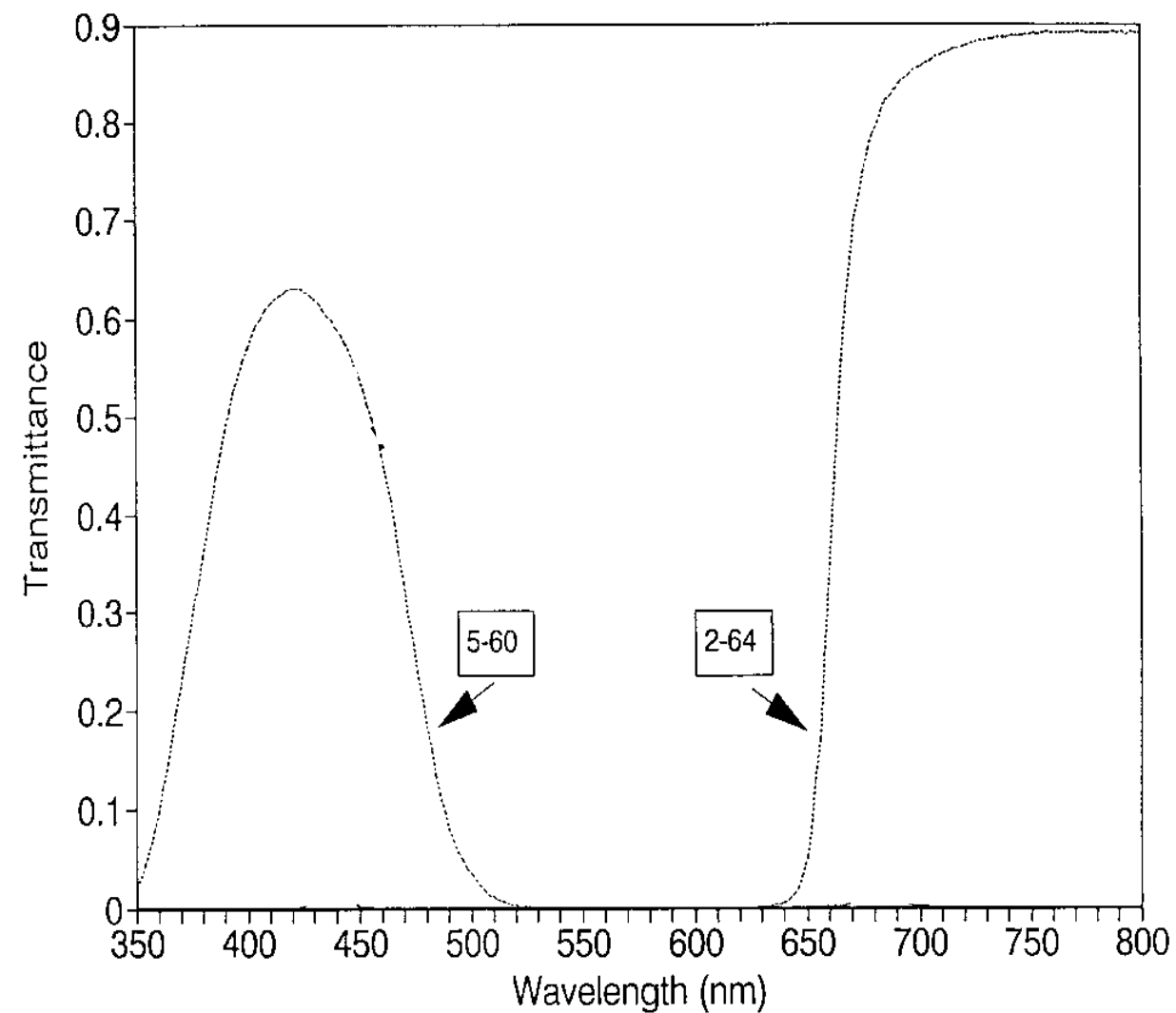


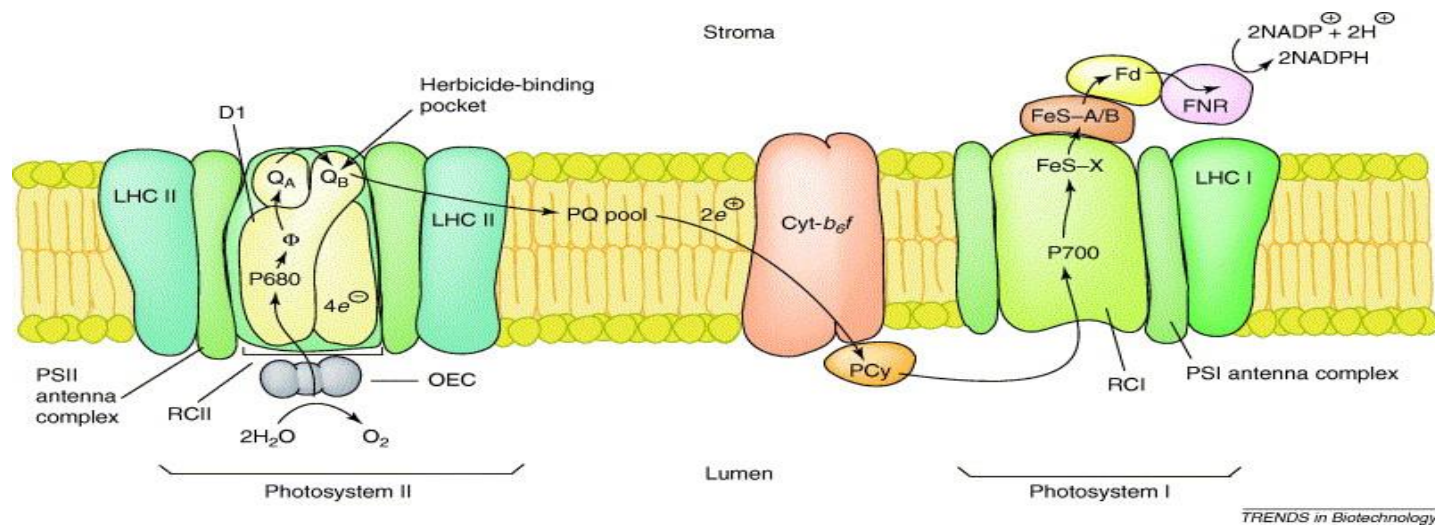
MONITORING CYANOBACTERIA IN MIXED ALGAL POPULATIONS IN AN EFFORT TO PREDICT THE ONSET OF CYANOHABS





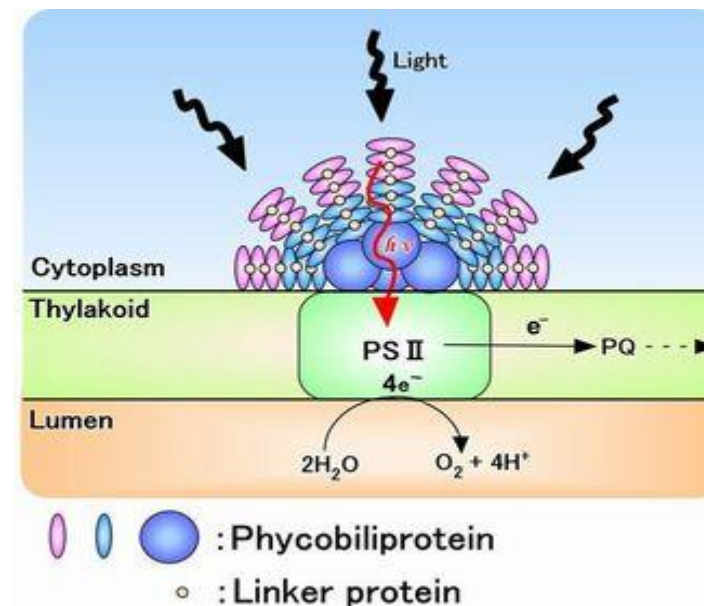


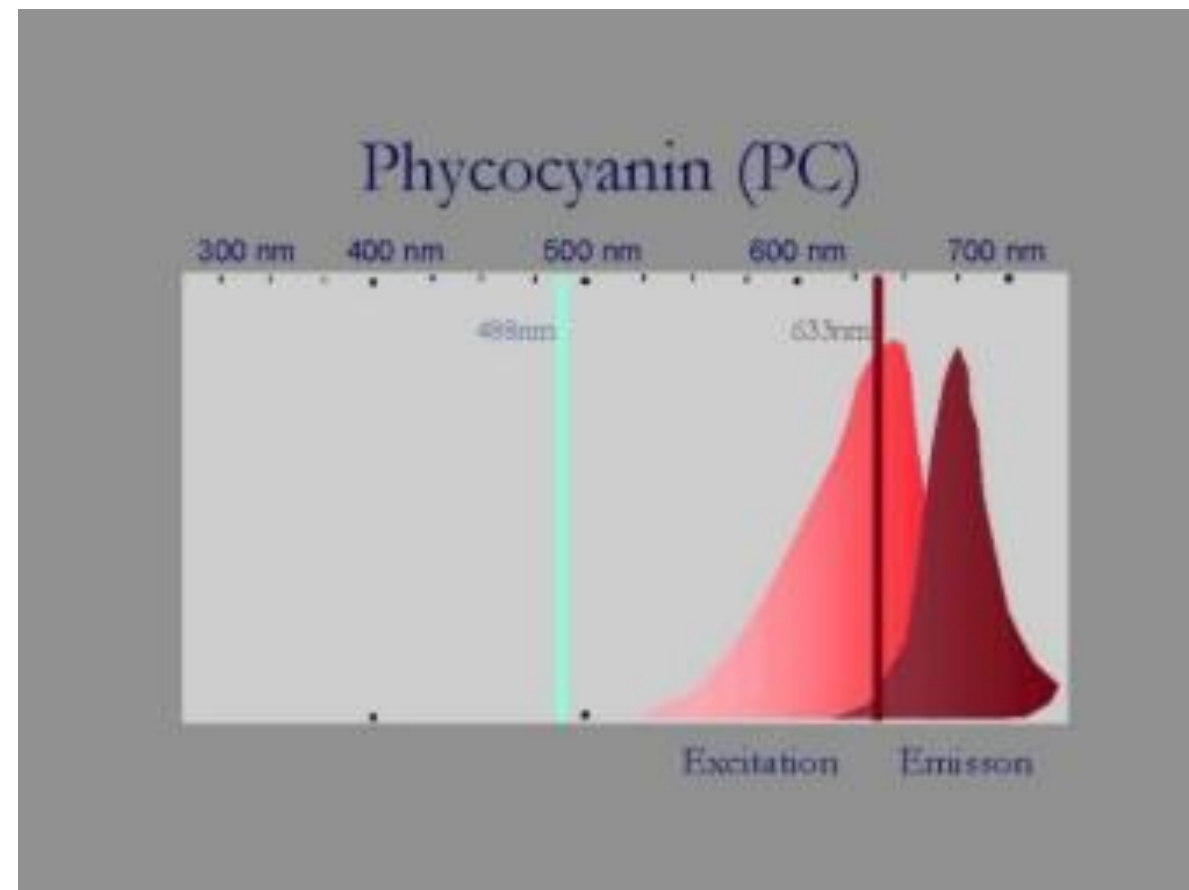
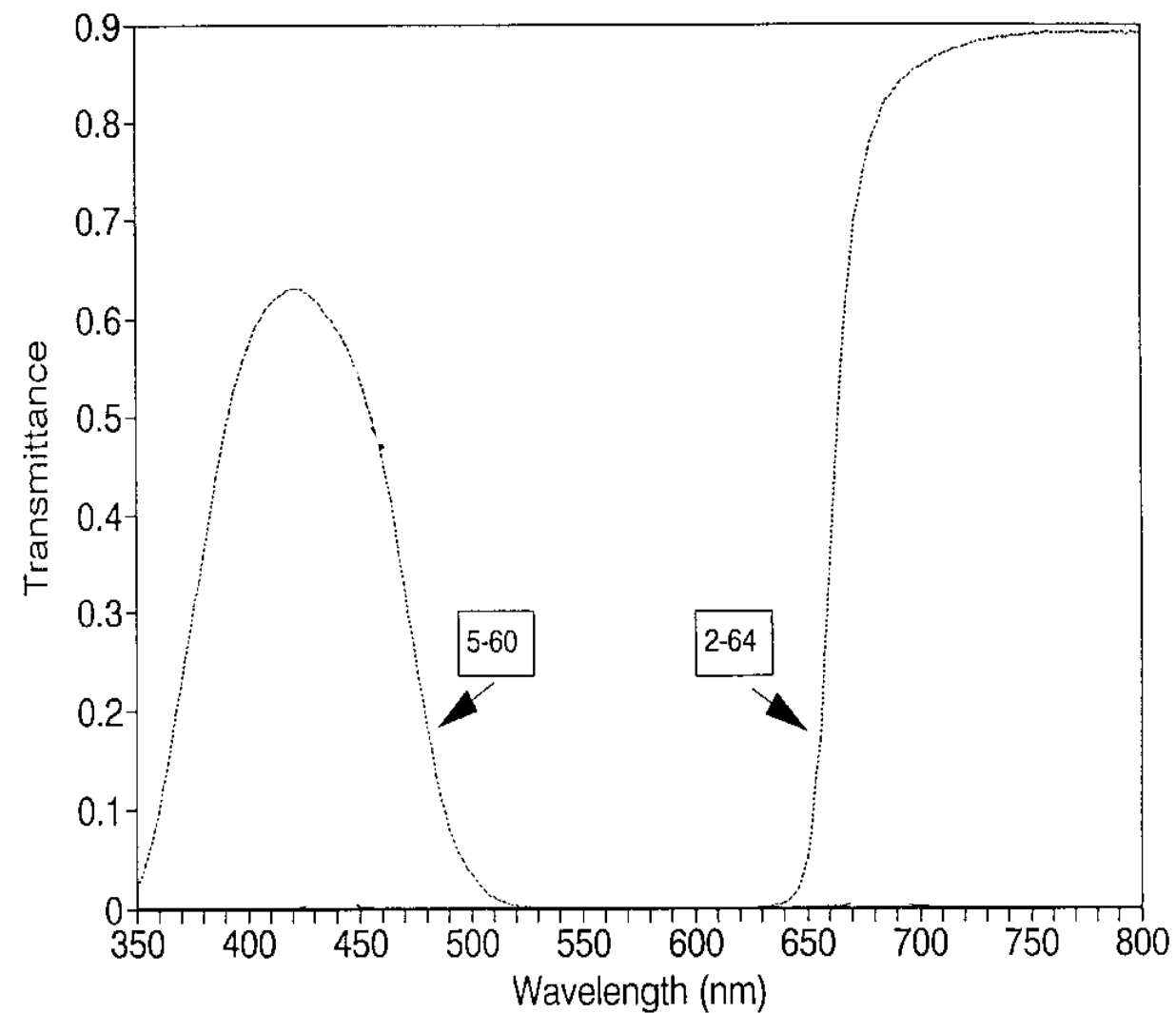
Algal Marker Pigments

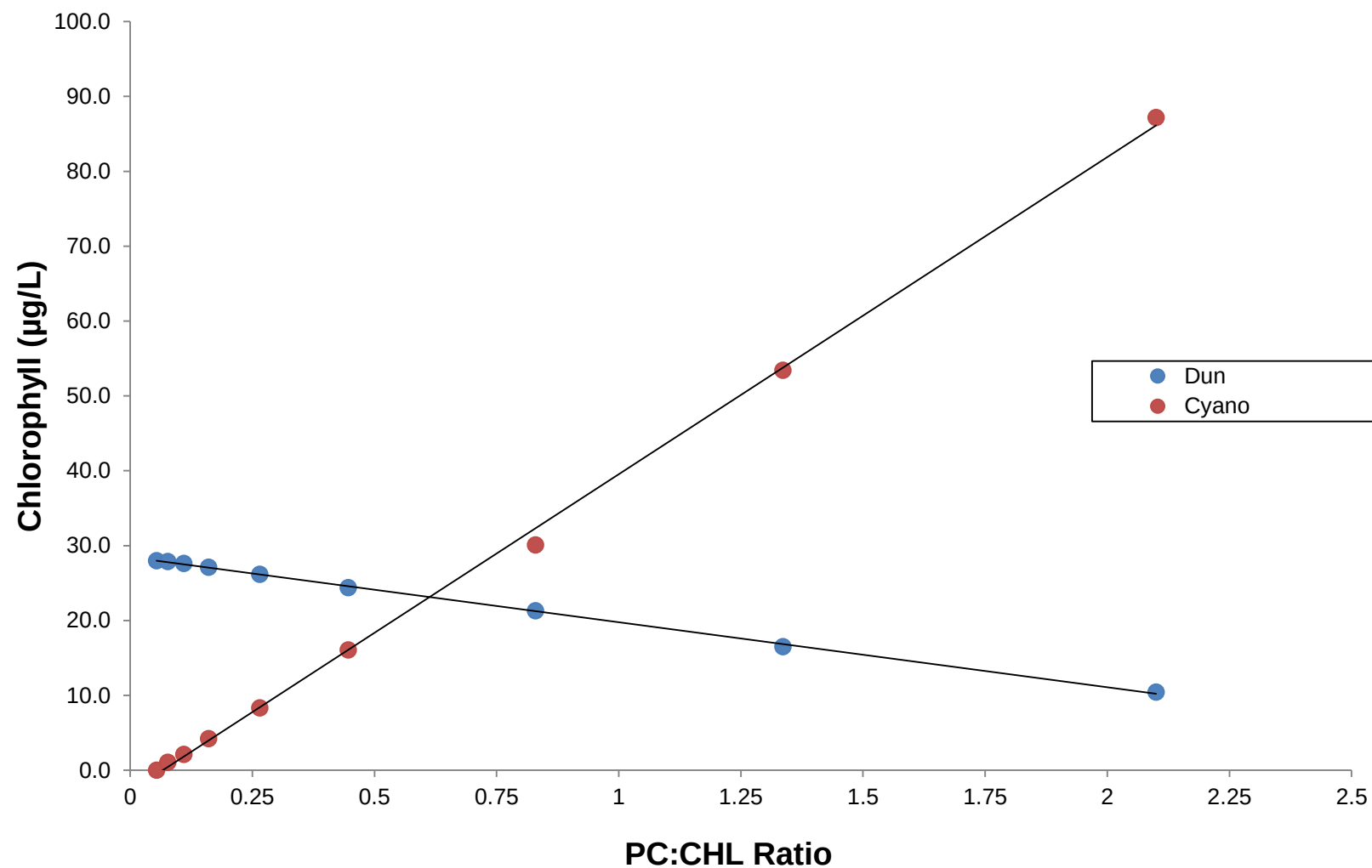


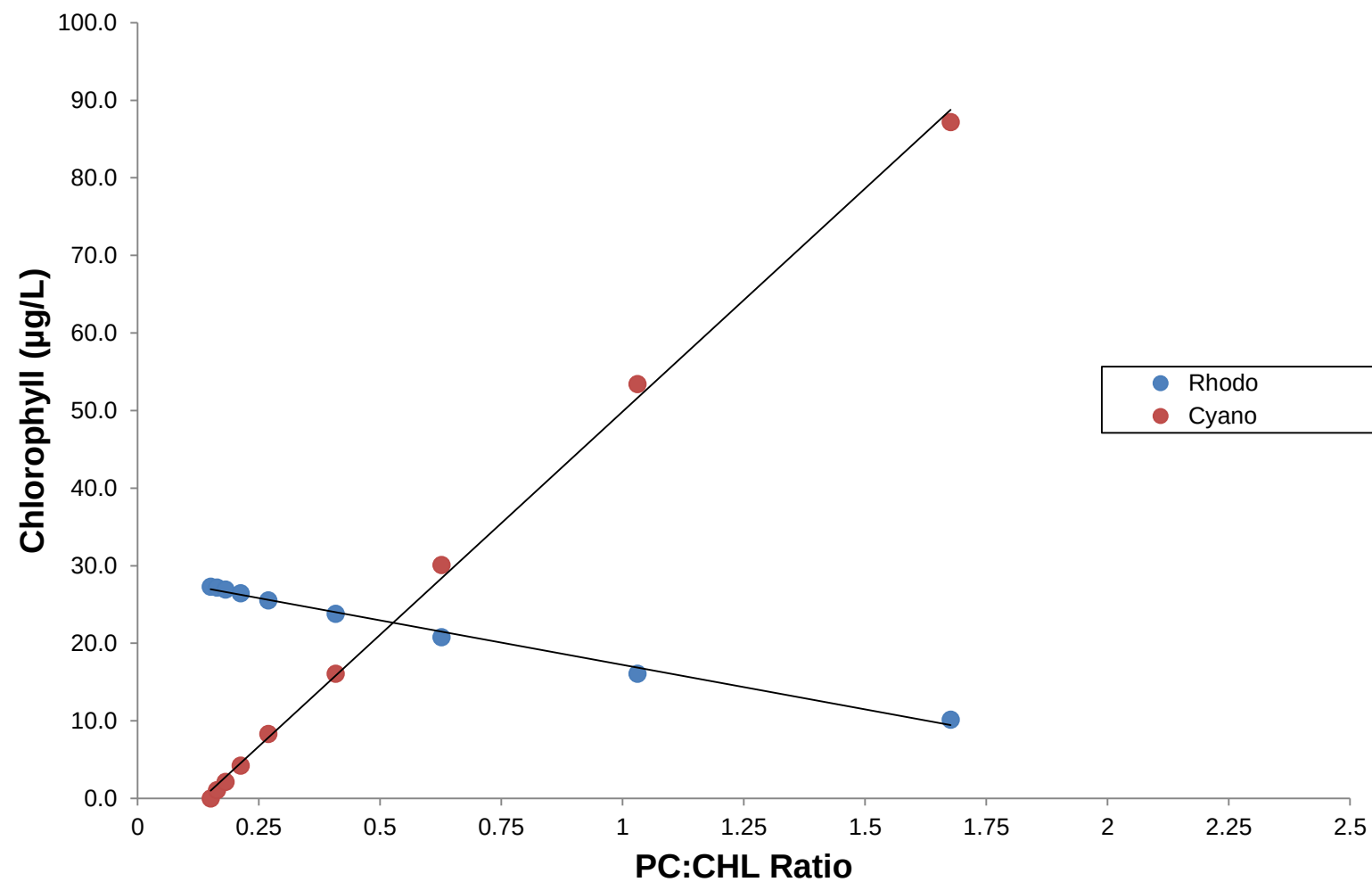
Algal Accessory Pigments

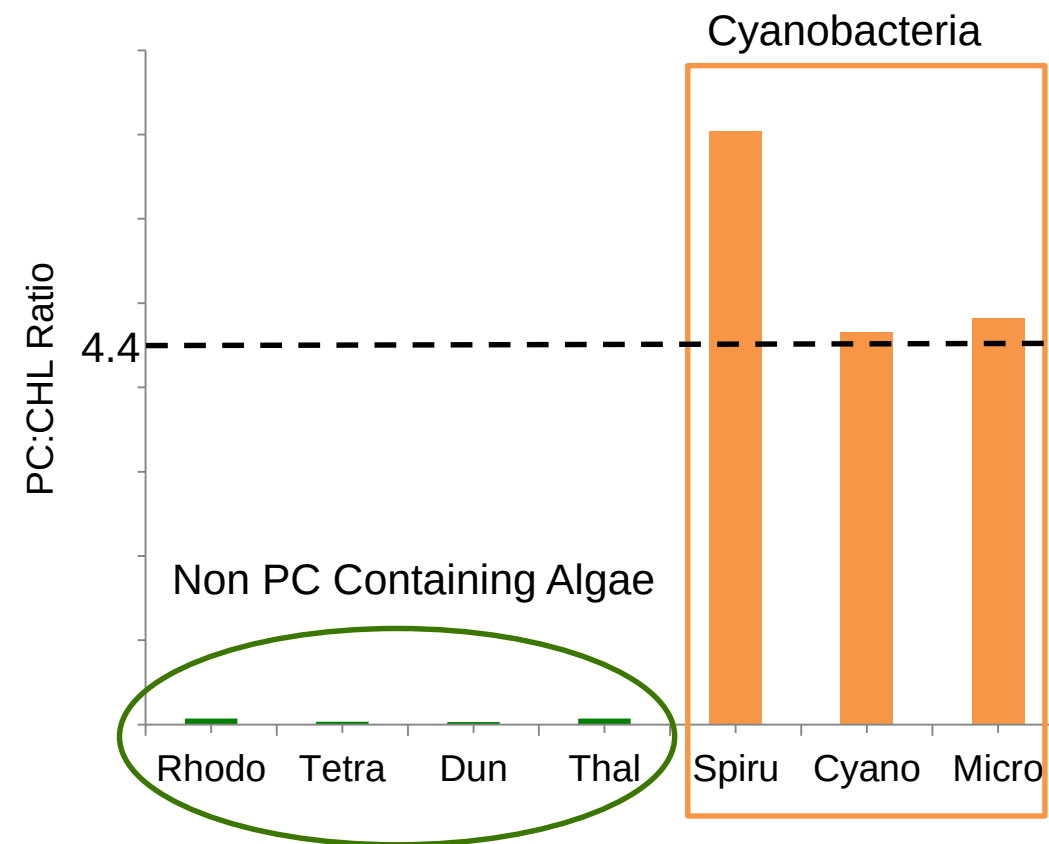
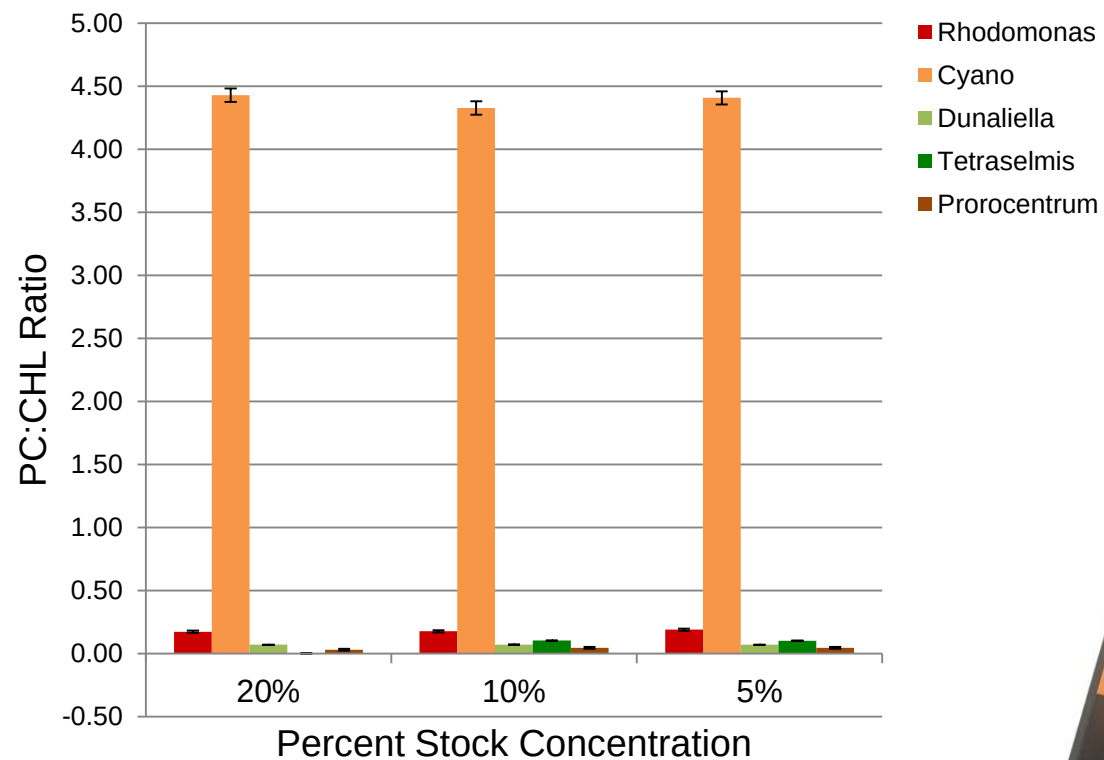
Cyanobacterial Accessory Pigments

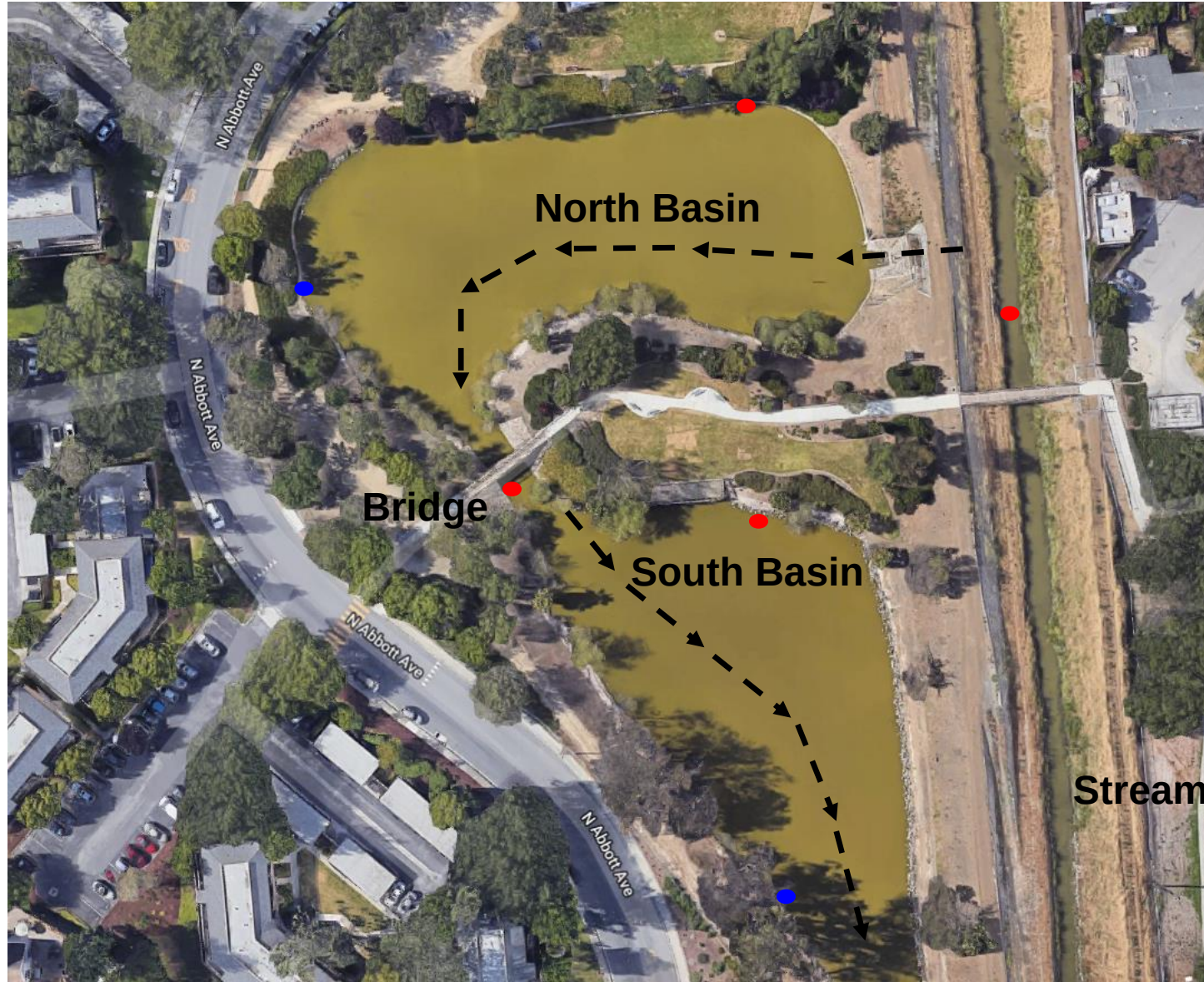












Visual Observation

Site 1 – North Basin



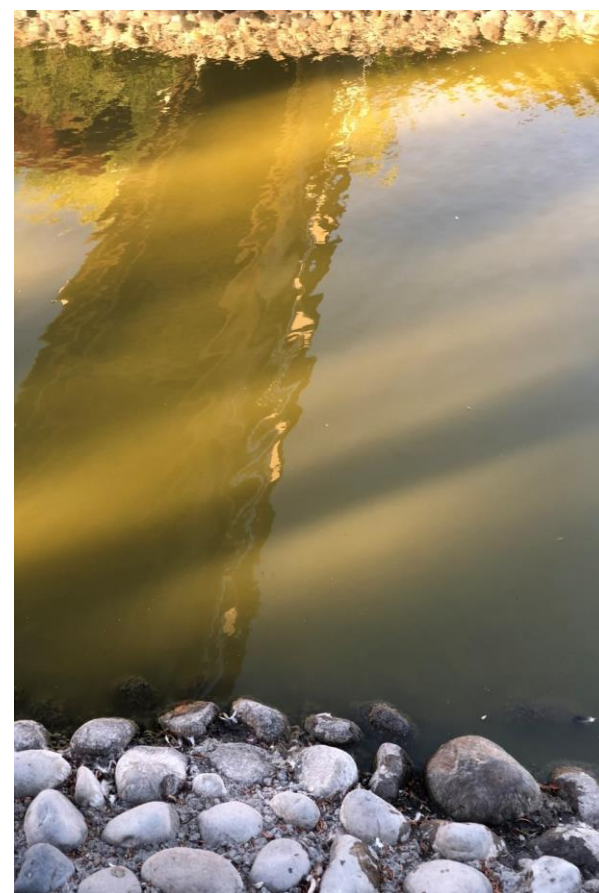
Site 3 - Stream



Site 4 – South Basin

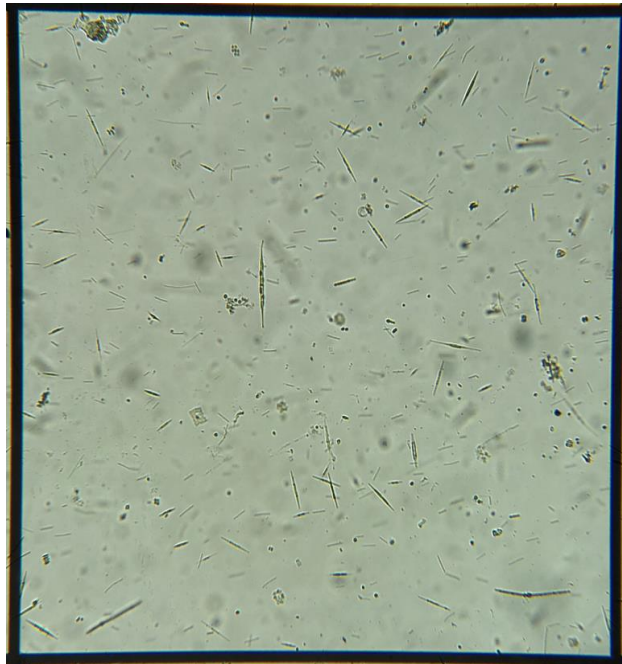


Site 6 - Bridge

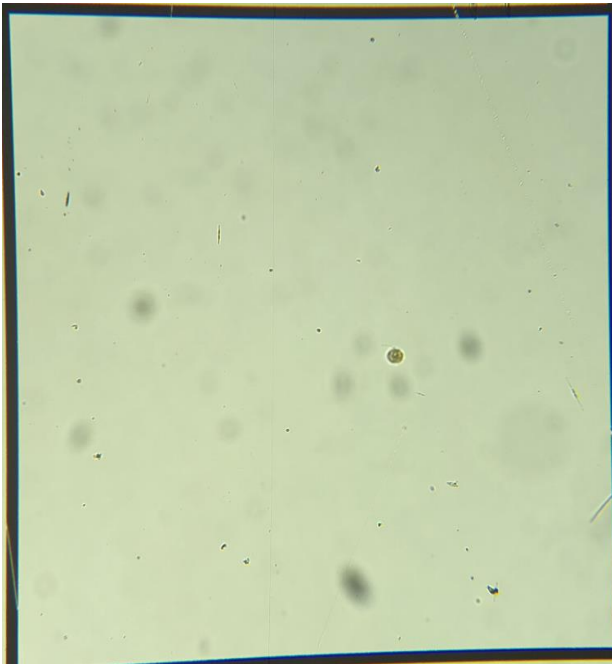


Microscopic Analysis

Site 1 – North Basin



Site 3 - Stream



Site 4 – South Basin



Site 6 - Bridge



Statistically Different (PC:CHL Ratios)

North Basin vs Bridge				South Basin vs Bridge				Stream vs Bridge			
0.374	0.4307			0.5842	0.4307			0.1383	0.4307		
0.3855	0.4253			0.5947	0.4253			0.1444	0.4253		
0.3722	0.4281			0.6102	0.4281			0.1128	0.4281		
		p = 0.013				p = 0.001				p = 0.002	

Chlorophyll µg/L Estimates

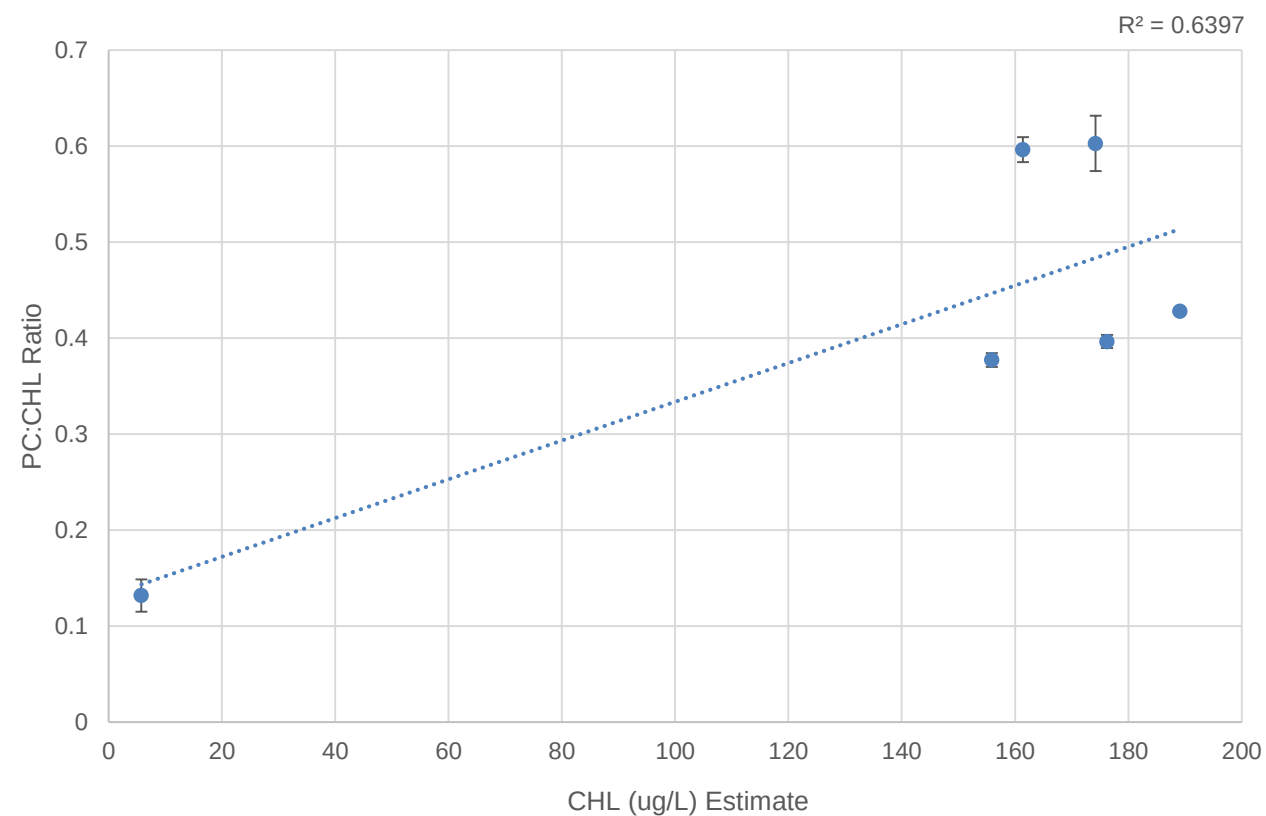
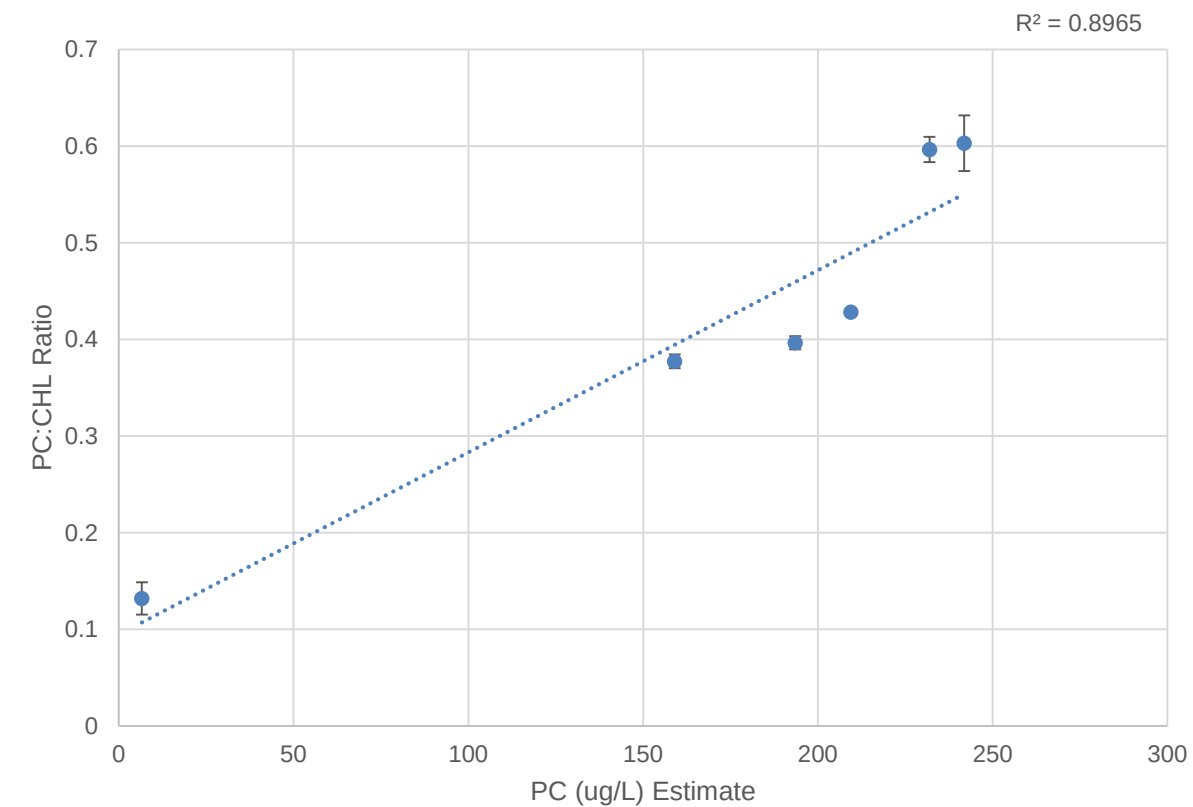
Chl (µg/L)	Site
155.9	North Basin
5.8	Stream
161.4	South Basin
189.1	Bridge

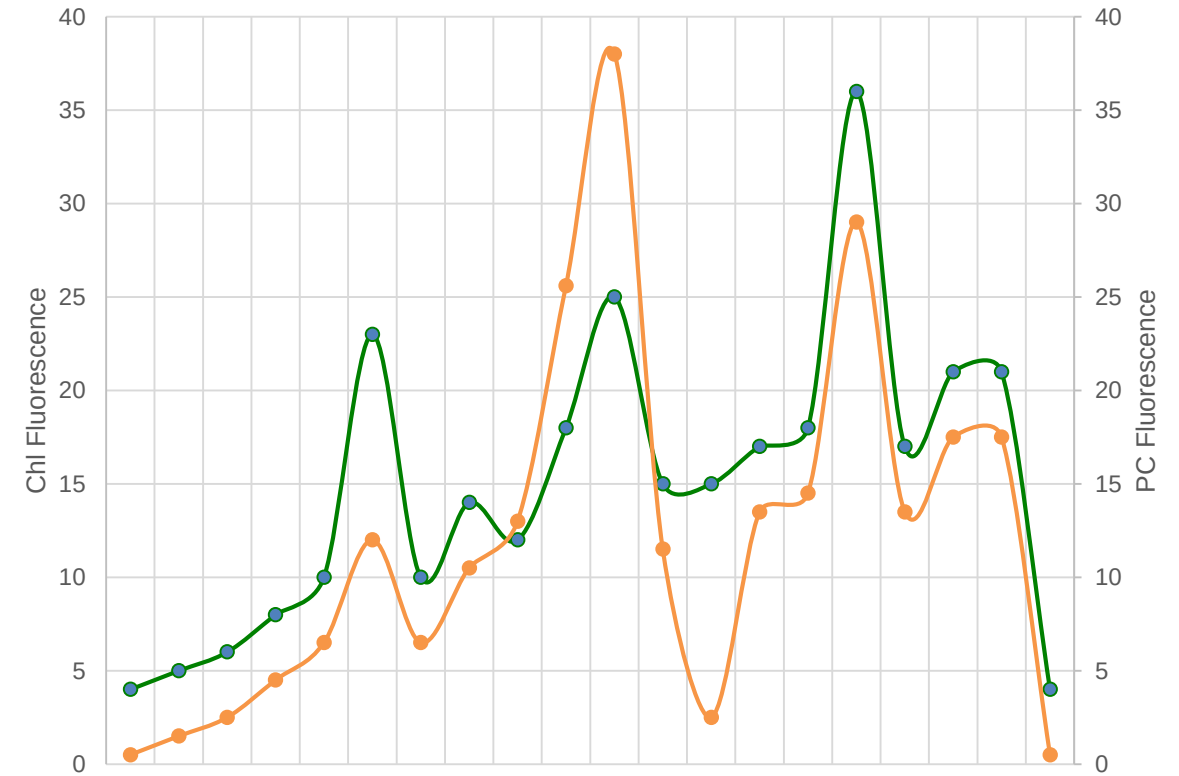
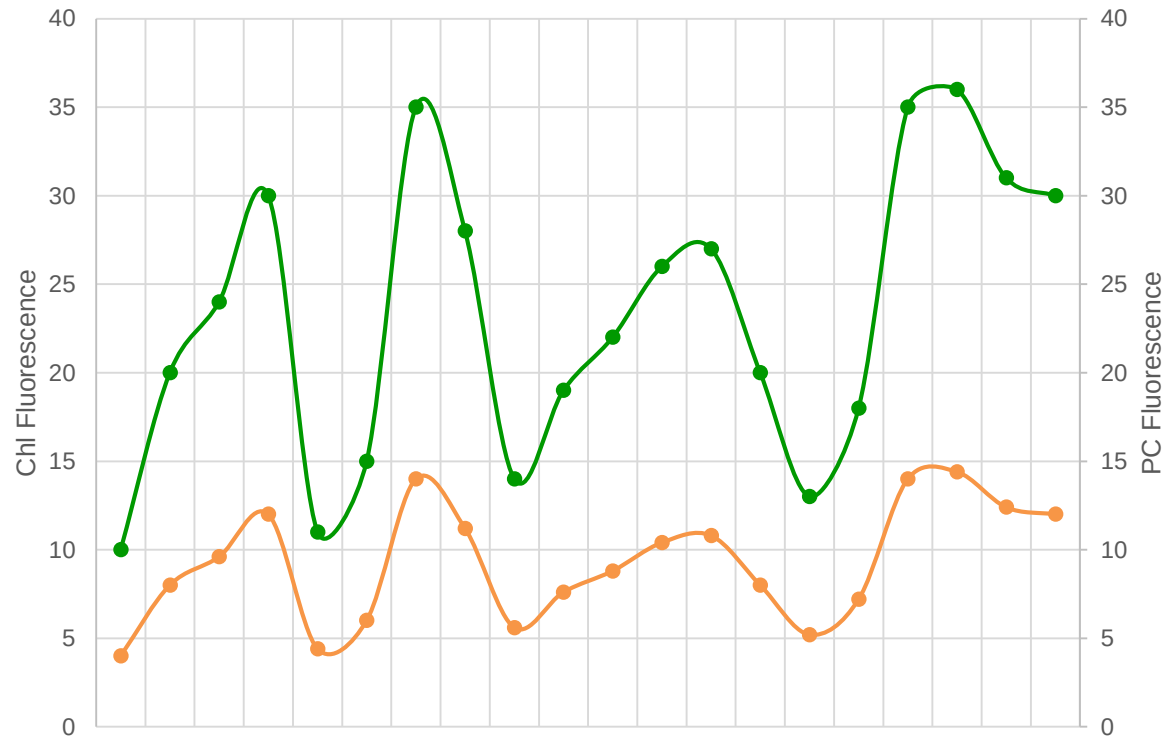
Phycocyanin µg/L Estimates

PC (µg/L)	Site
159.0	North Basin
7.0	Stream
232.0	South Basin
209.0	Bridge

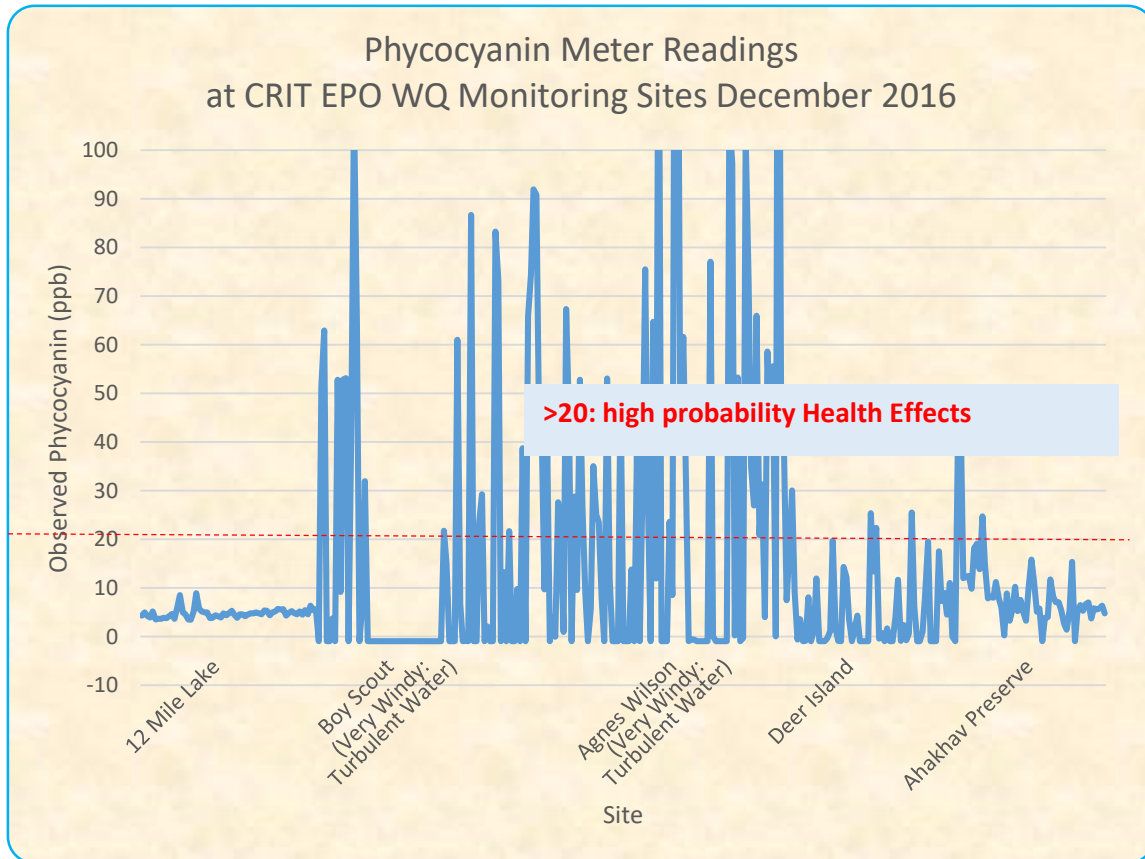


PC Tracks Ratios Better



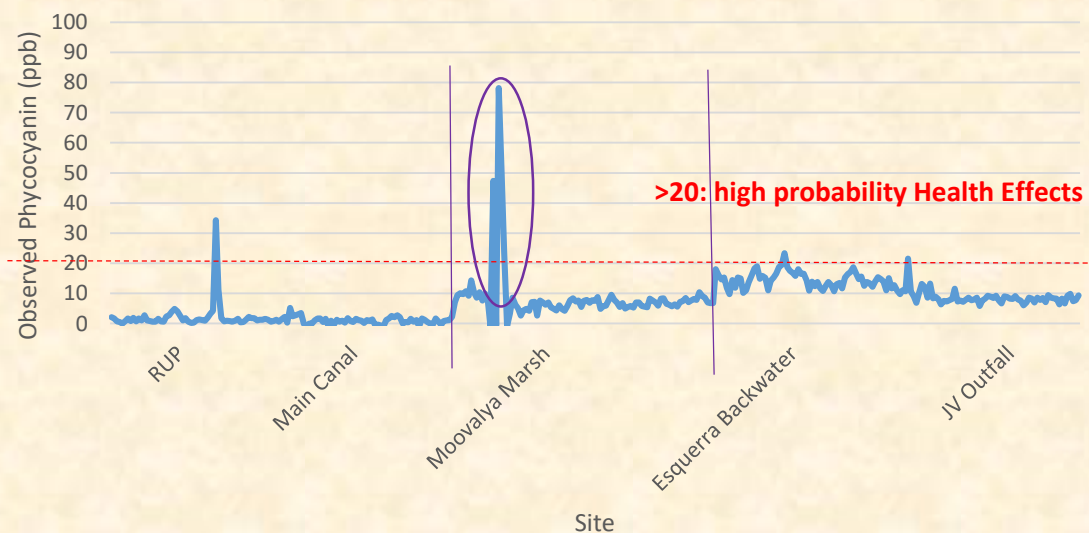


Indicate False Positives



Date:	Site:	Note:	PC:CHL Ratio	PC in RFUB	CHL in RFUB	Reading #
12/16/2016	12 Mile Lake	at Bridge	0.0952	175.1	1650.6	28
12/16/2016	12 Mile Lake	Duplicate	0.1097	163.94	1494.3	29
12/16/2016	Boy Scout	high winds, water turbulent	0.0444	12.64	284.97	30
12/16/2016	Agnes Wilson Bridge	high winds, water turbulent	0.1332	29.8	223.68	31
12/16/2016	Deer Island		0.0958	119.3	1245.1	32
12/16/2016	Ahakhav Preserve	Willow Beach	0.1458	174.26	1195	33

Phycocyanin Meter Readings
at CRIT EPO WQ Monitoring Sites December 2016



Date:	Site:	Note:	PC:CHL Ratio	PC in RFUB	CHL in RFUB	Reading #
12/14/2016	RUP	at Concrete dock	0.1392	27.59	198.16	22
12/14/2016	RUP	duplicate	0.0606	12.64	208.41	23
12/14/2016	Main Canal		0.0614	11.48	186.93	24
12/14/2016	Moovalya Marsh		0.0897	169.74	1891.6	25
12/14/2016	Esquerra Backwater		0.101	104.35	1032.6	26
12/14/2016	JV Outfall		0.205	210.9	1028.5	27



Algae rolling in the tide at Bathtub Beach on Hutchison Island, 6-26-16, JTL





Questions?